

Thirty-Sixth Volume—January, 1940, to December, 1940

## GENERAL INDEX

{Illustrated articles are indicated thus.\* Editorials are indicated thus†}

Issues	Page Numbers	Issues	Page Numbers
January	1 to 58	July	419 to 480
February	59 to 120	August	481 to 540
March	121 to 228	September	541 to 600
April	229 to 288	October	601 to 702
May	289 to 354	November	703 to 800
June	355 to 418	December	801 to 862

  

<b>A</b>			
Accidents:		Raise on old or new ballast?.....	330
Compound fissure causes derailment	833	What causes ballast to foul?.....	35
Drifting caisson causes bridge failure	255	Baltimore & Ohio:	
Human element still the key to prevention	*244	Compound fissure causes derailment	833
Motor car causes train derailment	262	Bank Widening:	
Precautions to be observed when trucking rails on push cars or trailers	32	Methods and equipment best suited for	*661
Preventing in a machine age.....	*447	Barco Manufacturing Company:	
Southern Pacific Streamliner derailment the result of sabotage	*28	Central power plant for Barco tappers	*190
Acids:		News item	278
Muriatic acid used to clean sewers	315	Bernuth Lembeck Company	109
Adzes and Adzing:		Bethlehem Steel Company	210
Improvements in Nordberg tie adzer	*181	Blast plates:	
Of ties on curves during rail laying	774	Search for new materials	*373
Airports:		Blaw-Knox Company:	
Another form of public subsidy.....	*371	Improved clamshell bucket	*188
Air Reduction Company, Inc.	342, 468, 530, 590,	Blueprints:	
Air Reduction Sales Company:	852	High-speed whiteprint machine	*186
Flame descaling, cleaning and dehydrating	*185	Model-F Ozalid whiteprinting machine	*842
News items	48, 468,	Ozalid portable printer	*523
Allis-Chalmers Manufacturing Co.:	788	Bolts:	
Engine-driven centrifugal pumps	*188	Should second-hand bolts be used in main tracks?	834
Model HD10 Diesel crawler unit	*523	Book Reviews:	
News items	109, 468	Joint Committee report on Standard Specifications for Concrete and Reinforced Concrete	833
Alton & Southern:		Proceedings of American Railway Bridge and Building Association, 1939	325
Treats lumber and timber with Wolman salts	*513	Proceedings of American Railway Engineering Association, 1940	524
Aluminum Company of America	278	Proceedings of American Wood-Preservers' Association, 1940	779
American Brake Shoe & Foundry Company; see also Ramapo Ajax Division	109, 852	Proceedings of Roadmasters' and Maintenance of Way Association, 1939	271
American Bridge Company	468	Railway Engineering and Maintenance Cyclopedia	31
American Chain & Cable Company, Inc.	466	Who's Who in Railroad Engineering	683
American Crosstowing Company, Inc.	407	Boston & Maine:	
American Hoist & Derrick Company	278, 342,	Drifting caisson causes bridge failure	255
American Lumber & Treating Company	342,	Bridges and Bridge Work: see also Abutments, Foundations, Preframing, Trusses, Welding:	
American Railway Bridge and Building Association:	688	Are motor trucks useful?	264
Convention program	*735	Can timber be preframed for?	*258
Convention reports	*726	Defects in masonry structures	327
Committee reports deserve careful study	*726	Drifting caisson causes failure	255
News items	46,	Emergency stocks of materials	835
107, 210, 336, 466, 526, 588,	844	Erie places long girder span with one locomotive crane	*571
Personnel of committees	276	Mechanization of forces for New materials for blast plates	*766
Proceedings of 1939	325	Power tools save money on long deck-renewal job	*638
American Railway Engineering Association:		Repair and renewal of ballasted-deck bridges	*752
Changes in committee personnel	275	Repairing masonry substructures	517
Convention program	*176	Repairing waterproofing on solid-floor structures	195
News items	46, 108, 336, 406, 466, 526, 588, 688, 788,	Sand blast for cleaning	396
Proceedings of 1940	844	Storage and delivery of material	*747
American Wood-Preservers' Association:	524	Strengthening old bridges	*80
News items	46, 108, 275, 466, 588,	Stress computations for bridge maintenance	*323
Proceedings of 1940	779	Transporting carpenter gangs	676
Anti-Creepers:		Use of compressed air	27
Effect on life of rail	95	Welded girder structure set in five hours	*506
Rail fastenings show marked development	*568	Bridge and Building Supply Men's Association:	
Ardeo Manufacturing Company	109	News items	526, 588,
Association of Maintenance of Way Foremen (Big-Four):		Report of exhibit in connection with Bridge and Building convention	*770
Report on training of foremen	*385	Brooms, Snow:	
Atchison, Topeka & Santa Fe:		Most satisfactory type	778
Erects all-welded steel tanks	*30	Buckets:	
Experiences with cross-ties	*438	Improved Blaw-Knox clamshell	*188
Experience with treated ties	*84	Buda Company:	
<b>B</b>			
Backfill:		Inspection and passenger rail cars	*524
Should it be puddled?	456	Light inspection car	*189
Ballast and Ballasting:		News items	48, 468
How much lift of track?	394	Tie puller	*683
Minimum depth on high-speed lines	98		
Multi-service ballast car	*182		

  

Tool grinder.....	*188
Buenos Aires Great Southern and Western Railways:	
Track inspector system works in the Argentine	*738
Buildings and Building Work: see also Roofs, Floors, Walls, Skylights, Painting, Insulation:	
Are motor trucks useful?	264
Can second-hand material be used?	837
Disposition of left over material	579
Inspection of buildings to formulate maintenance program	*766
Mechanization of forces for	*766
Meeting present requirements	*24
Must streamline stations too	*822
Southern Pacific uses plywood effectively	*643
Storage and delivery of material	*747
Transporting carpenter gangs	676
Bulkheads:	
Type for open-deck trestles	581
<b>C</b>	
Caissons:	
Drifting caisson on Boston & Maine causes bridge failure	255
Canadian National:	
Power tools save money on long deck-renewal job	*638
Carey, Philip Company	690
Carnegie-Illinois Steel Corporation	109, 590,
	690
Cars, Blast:	
Multi-service car	*182
Cars, Motor: see Motor Cars:	
Cars, Passenger:	
Buda units with capacity for 8, 12, 16 and 20 persons	*524
Cars (Revenue Equipment):	
Conserving in maintenance work	393
Caterpillar Tractor Company:	
News item	406
Seventy-Five Horsepower Diesel tractor	*193
Celotex Corporation:	
Absorptive type concrete form liner	779
Chesapeake & Ohio:	
More service from curve lubricators	*504
Track awards	98
Chicago & North Western:	
Motor car causes passenger train derailment	262
Chicago & Western Indiana:	
Bronze-welding of steam line	*831
Chicago, Burlington & Quincy:	
Track supervisor system	*246
Chicago, Milwaukee, St. Paul & Pacific:	
Trucks replace work trains for snow loading at terminals	*829
Chicago Pneumatic Tool Company:	
Air-operated sludge pump	*188
News items	342, 690
Reversible power wrenches	*333
Reversible wrenches in three new sizes	*842
Chicago, Rock Island & Pacific:	
Cleans sewers with muriatic acid	815
Relays two miles of rail a day	*316
Track supervisor system	*246
Chippewa Chemical Company	48,
Collins Oil & Manufacturing Co., Inc.	108
Competition:	
Airports—another form of public subsidy	*371
Is government waterway agency making money?	*307
Compressors, Air:	
Fordair rail car in larger model	*682
Ingersoll-Rand improved line	*184
I-R portable, two-stage unit	*841
Most suitable sizes for bridge and building gangs	455
New Tampair has more capacity	*842
Schramm portable compressor	*190
Use in B. & B. work	27

Concrete:		Flexseal waterproofing for build-		Should supervisor inspect sections	
Joint committee reports on	888	ings	523	with foremen?	197
Corrosion:		Improved Glasflex floor finish	842	Track inspector system works in	
Protecting steel structures from	*740	Improved ruggedwear floor resur-	779	the Argentine	*733
Cranes:		face	468	Track supervisor system on C. B.	
Erie places long girder span with		News items	48, 278, 407,	& Q. and C. R. I. & P.	*246
one crane	*574	Floodlights:		Who inspects scales?	99
Insulation for in overhead electrified		Prest-O-Lite assemblies	*187	Who should inspect scales?	*266
territory	*779	Floods:		Insulation, Thermal:	
Lima heavy-duty crawler type	*398	Improvements in rip rap protection	*817	When to insulate existing buildings	*91
Monitor-type cab for	*398	Protective devices on Southern Pacific	*374	International Creosoting & Construction	
Crossings, Highway:		Floors:		Company	109
Pipe drainage beneath	582	Colorflex surface treatment for	183	International Harvester Company:	
Principal requirements of	839	Improved Flexrock Glasflex floor	842	Introduces new power units	*334
Rail-top design on G.M. & N.	*389	finish	779	News items	406,
Safety demands flanges be kept	1687	Improved ruggedwear resurfacer	521	Three new Diesel TracTracTors	*191
open		Most suitable for shops		J	
Crossings, Railroad:		Relative advantages of wood, tile,		Jacks:	
Arrangement of timber beneath	518	brick, etc.		Lightweight 5-ton emergency jack	*190
M-K-T improves movable-point de-	*253	What kinds?		Practices to avoid hazards	680
sign		Foreign:		Johns-Manville Sales Corporation	278,
Cullen-Friestedt Company:		Track inspector system works in	*733	Jones & Laughlin Steel Corporation	468
Insulated crane for use in overhead	*779	the Argentine		Joyce-Cridland Company	210
electrified territory		Foremen:		Julian d'Este Company, The	466
D		Hold key to many railway problems	*739	K	
Dearborn Chemical Company:		Qualifications for work-train service	680	Koppers Coal Company, The	468
New pipe protection wrapper	*183	Relation-ship to well-maintained	828	Koppers Company	530
News item	468	track	*385	Labor:	
Dehydrating:		Their training as foremen see it	779	Foremen hold key to many railway	
Of steel by oxy-acetylene flame	*185	Forms, Concrete:		problems	*739
method		Celotex absorptive form liner	456	Must guard against a shortage in	
Delaware & Hudson:		Foundations:		maintenance departments	1556
Loading 1400-ft. rails	*88	Puddling backfill around	520	L	
Denver & Rio Grande Western:		Frogs:		Letters to Readers, from Editor:	
Uses plywood tops for cabinets and	*324	Heat-treated nuts for	199	Across the Seven Seas	
counters		Relative merits of long and short	459	A Directory of Live Manufacturers	
Deraillments; see Accidents:		guard rails		A Work Equipment Issue	
Descaling:		Frost Boxes:		Bill Was Right	
Of steel by oxy-acetylene flame	*185	Should they be left open during the		Calvin A. Lichty	
method		summer?		Keeping Up-To-Date	
DeVilbiss Company:		G		Men Make Associations	
Direct-drive spray painting outfit	*192	Gages and Gaging:		\$117 per Second	
News items	407, 468	Gaging new rail	*152	Saving Your Time	
Ditching:		Maintenance of gage for today's	*656	Subscribers and Readers	
Methods and equipment best suited		higher speeds	37	The Roadmasters' Convention	
for	*661	Measures to insure accuracy of		They Read the Advertising Too	
Drainage; see also Subdrainage:		tools		Letters to the Editor:	
Beneath highway crossings	582	Gangs:		Manufacturers need more co-opera-	
Drills:		Section or extra gang?	*819, 1245	tion	325
I-R close-quarter drill	*270	Transporting carpenter forces	676	Levels, Track:	
Drivers, Screw:		Yard or extra gangs?	265	Measures to insure accuracy	37
With replaceable tip	*779	General Aniline & Film Corporation	788	Lima Locomotive Works, Inc.:	
Duff-Norton Manufacturing Company:		General Electric Company:		Heavy-duty crawler-crane	*398
News items	109, 342, 406,	Diesel-driven arc-welder	*460	Linde Air Products Company	342
Tie puller used on S.P.	826	Fillet-weld gage	*192	Lining, Track:	
du Pont de Nemours & Company, E. I.	468	News items	407	Ahead of relaying rail	*152
E		Generators:		Locks:	
Eaton Manufacturing Company, Reliance		Homelite portable units for B. & B.	*184	Facing-point lock for U. S. & S.	
Spring Washer Division:		work	407	stands	*270
Improved Hy-Chrome spring wash-		Goodrich, R. F. Company		Lubricators and Lubrication: (Rail and	
ers	*270	Grinders and Grinding:		Flange)	
Elastic Rail Spike Corporation:		Accessories for Nordberg units	*184	More service from curve lubricators	*504
Elastic twispoke	*460	Buda tool grinder	*188	Study of rail lubrication necessary	
News item	109	Mall four-wheel rail grinder	*180	for maximum benefit	1436
Elastic Stop Nut Corporation		Guard Rails:		Lufkin Rule Company:	
News item	466	Merits of long and short	199	Chrome-face steel tapes	*192
Nine new types of stop nuts	*193	Gulf, Mobile & Ohio (Gulf, Mobile &		Lumber:	
Electric Tamper & Equipment Co.:		Northern):	*389	Alton & Southern treats lumber	
Jackson solo tamper	*683	Rail-top crossing		and timber with Wolman salts	*513
Streamlined Jackson tie tamper	*192	H		Most suitable for scaffolds and	
Electroline Company	788	Hammers:		staging	775
Employees:		I-R chipping and calking	*338	Preframing of	197
Higher wages—fewer men—more		Harnischfeger Corporation	530	Second-hand for buildings	837
machines	*310	Heating of locomotive terminal and		M	
Lots of human interest in railroad-		shop buildings	*760	Maintenance of Way:	
ing	1725	Hicks, C. D. Company	852	Advance programming of mainte-	
On the railways in 1938 and 1939	115	Homelite Corporation:		nance work more essential now	
Enterprise Railway Equipment Com-		Portable generator for B. & B.	*184	than for many years	1727
pany:		work		Expenditures for 1917-1939	115
Multi-service ballast car	*182	I		Foreman's relationship to well-	
Erie:		Ice:		maintained tracks	828
Places long girder span with one		Preparation for ice jams	478	Higher wages—fewer men—more	
locomotive crane	*574	Illinois Central:		machines	*310
Expander, Rail Joint:		Institutional advertising recognizes		It's results in work that count	*731
Simplex unit	*187	large part being played by		Modern trends demand modern	
F		equipment in maintenance		methods	*444
Fairbanks, Morse & Company:		work	*515	Must guard against a shortage of	
News items	342, 468,	Prompt action saves serious water		labor	1556
Single-phase vertical pump motors	*841	situation	*641	Simplification of track work	*649
Two-stage pumps	*334	Subdrainage cures the sliding of		Maintenance of Way Club of Chicago:	
Fairmont Railway Motors, Inc.:		high fill	*320	Election of officers	336
Improved M-5 weed mower	*186	Industrial Brownhoist Corporation:		News items 46, 107, 210, 275, 788,	844
Light-weight trailer car	*182	Monitor-type crane cab	*398	Mall Tool Company:	
News item	48	Ingersoll-Rand Company:		Electric vibrator for concrete	*271
Rubber cushion wheels for track		Chipping and calking hammer	*333	Four-wheel rail grinder	*180
motor cars	*180	Close-quarter drill	*270	News item	788
Fastenings, Track:		Improved Cameron motorpumps	*180	Portable power saws	*398
Should second-hand bolts and		Improved line of compressors	*184	Sanding and buffing pads	*189
spikes be reused in main		News items	48, 690	Marvel Equipment Corporation	852
tracks?	834	Portable two-stage air compressor	*841	Masonry:	
Show marked development	*568	Inland Steel Company	406	Defects in masonry structures	327
Fences:		Inspection:		Repairing masonry substructures	517
Protective fences increase safety of		For making tie renewals	266	Metal & Thermit Corporation	788
operation on S. P.	*374	Manual inspection of rail where de-		Metropolitan Maintenance of Way Club:	
Should not be entirely overlooked	*636	tor cars are operated	580	Election of officers	336
Fissures, Transverse and Compound:		Of buildings to formulate the main-		News items	844
Compound fissure causes derail-		tenance program	*756	Missouri-Kansas-Texas:	
ment	833	Part to be played by supervisor and		Improves movable-point crossings	*253
Flashing:		division engineer in annual tie	776	Modernization:	
Of built-up roofing	33	inspection		Must streamline passenger stations	*822
Flexrock Company:				too	
Colorflex surface treatment for	183				

Period of water station reconstruction at hand	†873	Platforms:		Reach new levels of efficiency	†243
To meet today's requirements	*24	How to lay brick	839	Rails Company, The:	
Motor Cars:		Roofs for transfer platforms	681	Head contact insert for worn rail joints	*182
Buda inspection units for 8 to 12 persons	*524	Plywood:		New item	588
Buda light inspection car	*189	Southern Pacific uses effectively in building work	*643	Railway Tie Association:	
Car causes train derailment on the Chicago & North Western	262	Power Units; (Prime Movers):		Election of officers	406
Fordair rail car in larger model	*682	New models of International Harvester Company	*334	News items	336, 844
Interval between shoppings	838	Preframing:		Ramapo Ajax Division-American Brake Shoe & Foundry Company:	
Motor cars, trucks or outfit cars for transporting carpenter gangs	676	For bridges	*258	Improved Racor switch stand	*333
Precautions when carrying tools	455	Of building lumber	197	Roading:	
Proper care of	35	Programming:		Are welding used effectively to repair train shed	*378
Rubber cushion wheels for	*180	Advanced programming more essential now than for many years	†727	Records:	
Special precautions in winter	101	Pumps and Pumping Equipment:		New levels of efficiency on the railways	†243
Stopping before meeting trains	194	Allis-Chalmers engine-driven centrifugal units		Of pile driving	34
Murray, D. J., Manufacturing Co.	210	Chicago Pneumatic air-operated sludge unit	*188	Reed-Prentice of B. C. Ltd.	342
		Fairbanks, Morse single-phase vertical pump motors	*188	Republic Steel Corporation	468, 530, 788
		Fairbanks, Morse two-stage units		Right-of-Way:	
		Improvements in Cameron motor-pumps		Cutting brush and tree seedlings from	522
		What is pump slippage?	*391	Rip Rap:	
		Worthington Monobloc units	*183	Many improvements in this type of protection	†817
		Purchases and Stores:		Roadbed: see also Drainage, Embankment:	
		Emergency stocks of bridge materials	835	Long ties at soft spots	453
		Purchases of work equipment by roads in 1939	*18	Soft roadbed demanding increased attention	†808
		Purchasing track shovels	772	Roadmasters' and Maintenance of Way Association:	
		\$6,600,000 for work equipment in 1940	*154	Committee appointments	108
		Storage and delivery of bridge and building material	*747	Committee reports deserve careful study	†726
		Swapping notes on work equipment valuable	*170	Convention program	526
		Water-service stocks	840	Convention report	*645
		What engineering and maintenance officers would purchase in work equipment if they had the money		News items	46, 844
				210, 275, 336, 406, 466, 588,	271
				Proceedings of 1939	
				Roofs:	
				Flashing built-up roofing	33
				For transfer platforms	681
				Rope, Wire and Hemp:	
				Replacing wire rope	773
				Ross & White Company	278
				Rules:	
				Chrome-face Lufkin steel tapes	*192
				Rutland:	
				Saves money by welding roadway signs	*825
				S	
				Safety:	
				Avoiding hazards with track jacks	680
				Human element still the key to accident prevention	†244, 328
				In handling rail	263
				Keeping personal injuries down	455
				Precautions when loading and carrying tools on motor cars	447
				Preventing accidents in a machine age	*374
				Protective devices increase safety on Southern Pacific	†497
				Railways excel all other agencies in stopping motor cars before meeting trains	194
				Sand Blast:	
				For cleaning steel	396
				Sanders and Sanding:	
				Mall sanding and buffing pads	*189
				Sash:	
				Longer life of treated material at tractive	†436
				Saws, Power:	
				New Mall models	*898
				Scallops:	
				Lumber most suitable for	775
				Scales:	
				Questions on inspection	99
				Who should inspect?	*256
				Schramm, Inc.:	
				Fordair rail car in larger model	*682
				New portable compressor	*190
				New Tampair compressor has more capacity	*842
				Sears Roebuck & Company	406
				Sewers:	
				Cleaning with muriatic acid	315
				Shimming:	
				Of timber trestles	100
				Shops, Maintenance of Way:	
				For work equipment on New Haven	*172
				Shops, Locomotive and Car:	
				Heating of terminal and shop buildings	*760
				Shovels, Hand and Power:	
				1-beam handle reinforcement	*189
				Purchasing track shovels	772
				Signals and Signaling:	
				Inserts copper strips in rails to prevent signal failures	*251
				Signs:	
				Saves money by welding	*825
				What kind of flange sign?	836
				Slides:	
				Protective devices on Southern Pacific	*374
				Slow Orders:	
				Under present-day operating conditions	*671
				Snow, see Winter:	
				Soldering:	
				Stanley irons and armor clad tips	*524



Southern Pacific:		Progress being made in mechanical		<b>V</b>	
Protective devices increase safety of operation	*371	aids	*816	Valves:	
Streamliner derailment the result of sabotage	*28	Renewing 50,000,000 a year	*728	Advantages of air-relief valves	578
Tie puller proves effective	*826	Should supervisor and division engineer participate in annual tie inspection?	776	Vibrators, Concrete:	
Uses plywood effectively in building work	*643	Tie puller proves effective on Southern Pacific	*826	Mall electric unit for concrete	*271
Speed of Trains; see also Track, and Maintenance of Way:		When to mark ties for	266	<b>W</b>	
Adjusting locomotive watering facilities to present operation	*744	Tie Tamper:		Wages:	
High maximum or high sustained	778	Central power plant for Bareo units	*190	Higher wages—few men—more machines	*310
High-speed turnouts demand increased attention	*498	I-R portable, two-stage compressor for tamping	*841	Walls:	
Outstanding achievement in freight service	7635	Jackson solo tamper	*683	What makes light color interior walls turn yellow?	394
Remarkable progress in passenger service	*815	New streamlined Jackson units	*192	War:	
Sperry rail service	*852	New Tampair compressor has more capacity	*842	Can the railways meet the demands?	*435
Spikes:		Proper size outfit	458	Washers, Coil Spring:	
Elastic twispikes	*460	Schramm portable compressor	*190	Improved Hy-Chrome units	*270
Should second-hand spikes be used in main tracks?	834	Ties, see also Track and Track Work, Tie Renewals and Wood Preservation:		Water Columns:	
Staging:		Adzing of on curves during rail laying	774	Faster delivery of water	775
Lumber most suitable for	775	Experiences and practices on the Santa Fe	*438	Water Hammer:	
Stairs and Stairways:		Failure in switch ties	196	Preventing in pipe lines	329
Ratio of risers to treads	777	Getting the most out of them	*438	Waterproofing:	
Standard International Sales Corporation	342	How can splits be controlled?	*509	Flexseal for buildings	523
Standpipes; see Water Columns:		How to measure spacing	326	Repair of on solid-floor bridges	195
Stanley Tools (Stanley Works):		Longer ties deserve increased consideration	779	Water Service; see also Pipe, Pumps, Tanks, Wells, Reservoirs:	
Electric soldering irons and armor clad tips	*524	Mechanical destruction still a big problem	453	Adjustment of locomotive watering facilities to large tenders and high-speed trains	*744
Replaceable-tip screw drivers	*779	Should joint ties be specially selected?	*437	Faster delivery of water	775
Stations, Passenger:		Tamp one or both sides?	*309	Period of water station reconstruction at hand	*373
Meeting today's requirements	*24	What can we expect from treated ties?	268	Prompt action saves serious situation on I. C.	*641
Must streamline stations too	*822	Timber Engineering Company	*84	The question of water service stocks	840
Standard plans for small stations	392	Timber Engineering Company of New England	468	Waterways:	
Stephens-Adamson Manufacturing Company	210	Timken Roller Bearing Company	466	Is government agency making money?	*307
Stresses:		109, 210, 342, 530,	852	Weeds and Weed Destroyers:	
Computations for bridge maintenance	*323	Tools, Hand and Power; see also Work Equipment:		Cutting or burning?	679
Subdrainage:		Insuring accuracy of levels and gages	37	How many applications of chemicals?	457
Cures the sliding of high fill on Illinois Central	*320	Mechanization of bridge and building forces	*766	How to cut brush	522
Substructures:		Precautions when loading and carrying on motor cars	455	Improved Fairmont M-5 mower	*186
Repairing those of masonry	517	Purchases by roads in 1939	*18	Removing scant growth from stone ballast	582
Supervision:		Purchases in 1940	*154	Wide choice of methods available today	1556
Should supervisor go over sections with foremen?	197	Save money on long deck-renewal job	*638	Woody junior weed burner	*193
Supervisor System, Track:		Tops for cabinets and counters	*324	Welding and Welding Equipment:	
On the C. B. & Q. and C. R. I. & P.	*246	Track and Track Work; see Frogs, Switches, Crossings, Rail Laying, Ties, Tie Renewals, etc.		Bronze-welding saves old leaking steam line	*831
Track inspector system works in the Argentine	*733	Track Awards:		G-E fillet-weld gage	*192
Surfacing:		C. & O.	93	G-E, single-operator arc-welding set	*460
How many tie faces should be tamped?	*498	N. & W.	93	Its uses in track work	*664
Tamping one or both sides of the tie	268	Pennsylvania	261	Loading 1400-ft. welded rails on D. & H.	*88
What size of tie tamper?	458	Track Supply Association:		Strengthening old bridges	*80
Switches; see also Switch Stands:		News items	336, 406, 466, 526,	Used effectively to repair train shed	*378
Design, construction and maintenance of turnouts for high speeds	*506	Report on exhibit in connection with Roadmasters' convention	588	Welded girder bridge on Union Railroad set in five hours	*500
Lubricating switch points	99	Tractors:		Welded roadway signs on Rutland	*825
Turnouts for high speed demand increased attention	*498	Allis-Chalmers HD10 Diesel crawler type	*523	Wells:	
Switch Stands:		75-hp. Diesel Caterpillar unit	*193	Failure of well on I. C. corrected by prompt action	*641
Improved Racor automatic safety stand	*333	Three International Diesel Tractor	*191	Rejuvenation of	*387
U. S. & S. types with facing-point lock	*270	Trailers:		Western Maryland:	
Where to place them	516	Fairmont light-weight unit	*182	Eroded pier gets wrought-iron armor	*821
<b>T</b>		Train Sheds:		Westinghouse Air Brake Company	342
Tanks:		Reading uses are welding to repair	*378	What Our Readers Think; see Letters to the Editor:	
A. T. & S. F. erects all-welded unit Can sweating be overcome?	*30	Trestles:		Wheels:	
Should frost boxes be open in summer?	521	Driving piles to rock	267	Cushioned with rubber for motor cars	*180
Should hoops of wood tanks be loosened before painting tub?	459	Shimming for surfacing	100	Whiteprints:	
Who should repair those of wood?	36	What type bulkhead for	581	High-speed Ozalid machine	*186
Taxes:		Trucks, Motor:		Model-F Ozalid whiteprinting machine	*842
In 1939	*115	Are monopolizing the highways	777	Whiting Corporation	407
Teleweld, Inc.	109	Find place in snow removal	*817	Who's Who in Railroad	683
Tell Tales:		For bridge and building forces	264	Wilson Welder & Metals Co., Inc.	342, 590
Welded on the Rutland	*825	Moving paint gangs	519	Winter; see also Heaving, Ice, Switch Heaters:	
Templeton, Kenly & Company:		Proving valuable for snow removal	*244	Handling snow and ice	*651
Lightweight 5-ton emergency jack	*190	Replace work trains for snow loading at terminals	*829	Most satisfactory type of snow broom	778
News items	278,	Transporting carpenter gages	676	Place for trucks in snow removal	*817
Simplex rail joint puller and expander	*187	Turnouts:		Trucks proving valuable for snow removal	*244
Termites:		Design, construction and maintenance for high speeds	*506	Trucks replace work trains for snow loading at terminals	*829
Detection and elimination of in railway structures	*763	Those for high-speed demand increased attention	*498	What kind of flanger sign?	836
Methods of ridding buildings of them	332	Turntables:		Wood Preservation:	
Tie Plates:		How to support circle rails	677	Alton & Southern treats lumber and timber with Wolman salts	*513
Rail fastenings show marked development	*568	<b>U</b>		Resumed upward trend in 1939	*442
Tie Pullers:		Union Carbide & Carbon Corporation:		What can we expect from treated ties?	*84
Buda tie puller	*683	News item	342	Wood Preserving Corporation	407, 468, 590, 690
Duff-Norton units prove effective on Southern Pacific	*826	Prest-O-Lite floodlight assemblies	*187	Wood Shovel & Tool Company:	
New Duff-Norton unit	*181	Union Railroad:		Shovels with I-beam handle reinforcement	*189
Progress in development	*816	Welded girder bridge set in five hours	*500	Wooley Machine Company:	
Tie Renewals; see also Tie Pullers:		Union Switch & Signal Company:		New junior weed burner	*193
Hot weather a poor time to renew ties	*499	News item	342	Work Equipment; see also Tools, Hand and Power:	
How many ties per man hour	675	Switch stands with facing-point lock	*270	Centralizes repair of on New Haven	*172
How to measure tie spacing	326	United States Steel Corporation	468	Considerations governing selection	*308
In years 1925-1939	*115	United States Steel Corporation of Delaware	590		
Jacking track to remove ties	395	Unit Heater & Cooler Company	210		
Opportunity for large savings	*557	Universal Power Corporation	852		

Considerations in selection.....	331
Higher wages—more machines.....	*310
Its results that count.....	*731
Mechanization of bridge and building forces.....	*766
Most suitable size air compressors for bridge and building gangs.....	455
Needs for additional units as expressed by engineering and maintenance officers.....	*164
Off-track units a challenge to manufacturers.....	*153
Purchases by Roads in 1939.....	*18
\$6,000,000 for in 1939.....	*18
\$6,600,000 for in 1940.....	*154

Swapping notes on purchases valuable.....	*170
Three trends now clearly in evidence.....	*499
Use will continue to expand.....	*152
What it means to general manager, bridge engineers, engineer maintenance of way and supervisor.....	*158
Work Trains.....	680
Qualifications of foremen for.....	*829
Replaced by trucks for snow loading at terminals.....	
Worthington Pump & Machinery Corporation.....	

Monobloc pumps.....	*183
News items.....	48, 210, 852
Wrenches, Hand and Power: C-P reversible wrenches in three new sizes.....	*842
Power release for Raco nut runner.....	*682
Reversible types of Chicago Pneumatic Tool Company.....	*333
Yards.....	
Faster freight service requires better tracks.....	*686
Young & Greenawalt.....	468

## PERSONAL MENTION

[Photographs are indicated thus.\* Obituaries are indicated thus †]

A		B		C		D		E		F	
Adams, C. E.	847, *848	Backes, E. W.	590	Cage, D. C.	848	Daggett, H. M.	468	Earl, E. E.	784	Factor, John	105
Adams, E. G.	402	Bain, Charles Edward	275	Callahan, H.	1686	Dahl, Leslie H.	106, 784	Eckelberger, P. F.	274	Falk, Otto H.	468
Adams, E. P.	40, 44	Baines, G. E.	848	Campbell, J. H.	464	Dailley, W. E.	586	Edwards, E. E.	784	Farries, Robert	*686, 783
Adams, L. R.	784	Baker, C.	529	Campbell, W. L.	144, 106, 107	Davis, David, Jr.	273	Egan, F. H.	464	Fasmer, John J.	*210
Alden, John W.	530	Baker, J. H.	848	Campbell, W. L.	107	Davis, Glenn William	338, 492	Elam, Richard M.	*587	Feikert, F. A.	781
Alexander, T. R.	848	Baldwin, R. A.	104	Carey, James	783	Davis, John R. W.	*42	Elliott, G. P.	41	Feldbush, H. A.	210
Alfrey, H. H.	106	Barker, P. L.	685	Carpenter, O. H.	273, 403	Davis, R. W.	685, 685-A, 781	Elliott, Leigh B.	781, 845	Ferguson, A. D.	*846
Allderdice, Norman	342	Barnes, W. W.	590	Carpenter, Walter S., Jr.	468	Dayett, G. H.	*203	Elliott, V. R.	462	Ferguson, Andrew N.	43, 106
Allen, Leonard B.	*462	Barnhart, E. H.	463, 465, 587	Carroll, John E.	278	de Lambert, Guy M.	781, 784	Emerson, J. B.	590	Ferguson, William Bruce	43, 848
Allen, Robert G.	*590	Barr, Harold L.	41	Carroll, M.	106	Dennison, W. R.	40	Emond, J. E.	848	Ferrill, O. C.	685-A
Allison, J. P.	685, 685-A	Bassarab, N.	848	Causey, A. E.	338, 340, 403	Dennen, D.	529	Enright, J. L.	*44	Fitzsimmons, P. H.	106, 586
Anchors, E. H.	468	Bates, Bascom A.	44	Chambers, Gerald	783	Dennis, W. O.	41	Enriquez, Pablo Lunca	103	Flathberg, O. M.	586
Anderson, P. E.	848	Batson, Charles D.	*407	Chandler, F. C.	*587	Dernberg, E. A.	206, 340	Ensign, J. P.	528, 529	Floyd, W. I.	342
Andrew, C. G.	342	Battis, John H.	586	Chandler, W. A.	161, 685-A	Donnelly, C.	206	Erlandson, N. O.	848	Flynn, T. J.	105
Anthony, J. S.	464, 586	Bayer, E. J.	782	Chase, C. E.	463	Devonish, W. R.	*40	Espeland, Henry	530, 587	Force, David W.	464
Armstrong, G. E.	402, 464	Beacken, William A.	844, 848	Cheatham, J. N.	586	Dickson, F. C.	685-A, 690	Ethison, Frank L.	464	Ford, Charles Finley	*465, 528
Armstrong, S. E.	*847	Beale, Frank D.	400	Chipman, R. N.	48, 109	Diehl, C. A.	690	Eustace, K. W.	105	Fox, H. M.	*782
Armstrong, William H.	*278	Beatty, L. D.	403	Christy, P. J.	690	Dike, C. T.	273, *337, 685	Evans, L. A.	206	Fox, J. M.	206
Armstrong, W. R., Jr.	585, 783	Bebb, J. E.	41	Chubb, J. E.	529	Dillon, John A.	342	Evans, W. R.	48	Francis, W.	
Arnold, H. C.	105	Beeder, R. H.	208, 340	Church, Maynard D.	48	Dillon, John A.	342	Evert, Gus	838		
Ashley, Harold S.	585	Bell, J. B.	41	Churchill, M. M.	528, 206	Dinberg, E. A.	685-A	Exley, L. P. O.	685		
Aubin, E.	529	Benedict, F. R.	403	Clare, H. E.	403	Donnelly, C.	206				
Auer, George, Jr.	528, 529	Bennett, H. A.	463	Clausen, Elias C.	103	Dunlop, D. M.	848				
Austill, H.	685	Bentz, W. H.	586	Clegg, Chester B.	848	Dunlop, E. C.	685-A				
Austin, Frank Stearns	*585	Bernuth, Charles	784	Cleveland, G. C.	848	du Pont, Lamont	468				
Aydellott, G. B.	206, 586, 784	Bernuth, O. M.	48, *169	Clutz, J. J.	203, 206	du Pont, Pierre S.	468				
		Bertram, H. A.	528, 530, *587	Coil, Corbett W.	685, 105						
		Bickel, W. E.	850	Conley, C. L.	105						
		Bielema, M. J.	106	Connerton, Michael J.	*530						
		Billet, R. C.	783	Cooper, Lewis F.	44, 340						
		Billing, Henry	48	Cooper, William	848						
		Bishop, J. M.	402	Corbyn, Mark Henninger	587, 784						
		Bishop, R. C.	685-A	Corley, W. F.	465						
		Bitner, M. C.	338, 401	Cornell, J. F.	342						
		Black, W. M.	*852	Cornell, W. E.	782						
		Blackburn, William	529	Coughlan, R. E.	*204						
		Blackie, George F.	105, *204, *686	Coverly, Charles O.	103, 203						
		Blackmore, George A.	342, 406	Cox, J. L.	527, 845						
		Blackwell, W. A.	462, 586	Craig, L. B.	403, 161, 165						
		Bless, A. F.	*210	Cranwell, James L.	162, *527, 528						
		Blair, G. L.	784	Crawford, T.	103						
		Bliss, T. E.	401	Creedle, F. W.	845						
		Blix, W. E.	529, 783	Crew, R. H.	273, 845						
		Bloch, L. E.	406	Crocombe, W. E.	852						
		Bloom, J. George	*340	Cross, Leo	105						
		Blosser, R. E.	529, 685-A	Crowe, John J.	342						
		Bogich, M. P.	402	Curtis, R. D.	206						
		Boland, E. J.	206, 274	Curtis, G. W.	852						
		Boles, J. M.	529	Curtis, T. M.	848						
		Booth, H. M.	401, 402	Curtiss, L. B.	781, 845						
		Bourne, John F.	586	Cushing, William C.	*107						
		Bourne, M.	206, 274								

Frazier, Harry	206	I	Manson, E. F.	273
Frederick, M. L.	848		Manville, N. E.	847, 850
Free, W. E.	163		March, W. F.	105, 206
Froats, H. W.	208		Mark, James F.	846
Fryer, H. C.	685-A		Markert, G. D.	161
Fuller, Jack	206		Martens, Howard, Howard W.	44
Funk, L. W.	781, *846		Martin, G. E.	850
			Mason, E. F.	103
G			Mason, Frank H.	586
Gall, John	586		Mathews, R. C.	105, 402
Gallagher, J. A.	784		Mau, David	1786
Gallagher, R. W.	206, 6208		Maurer, Ward B.	342
Gallavan, J. L.	273, 402		Maxeiner, C. A.	685, 685-A, 782
Gambill, E. M.	273		Mayer, H. E.	274
Gardner, Norman B.	340		Maxine, Earl L.	*41
Garrett, Edgar N.	685-A		McAdams, D. H.	210
Garrigues, H. H.	782		McCaffrey, J. L.	406
Gaut, R. E.	44		McCallum, N. W.	781, 846
Geis, R. L.	527		McCann, Charles	464
Geiser, W. P.	464		McCarl, L. E.	529, 685-A, 850
Gibbs, George	465		McCullough, Clarence	2208
Gibson, P. R.	685-A, 850		McCune, Robert H.	48
Gipe, C. E.	685-A, 273		McGinnis, Thomas A.	342, 406, *1407
Gilason, Robert A.	41, 273		McHague, Madison	783
Gobell, A. W.	208		McMahan, P.	587
Gogan, Mowry E.	330		McMullen, Arthur A.	586
Gogan, Peter J.	586		McMurray, W. H.	586
Gosling, T. W.	587, 686		McNalley, P. F.	686
Gough, D. C.	400		McNamara, C. J.	106
Graham, A. H.	529		McRoberts, G. A.	403
Gran, Oscar	529		Mead, E. L.	845
Gravelle, R. A.	273		Meintz, Ralph H.	*528
Green, L. W.	783		Mellor, W. E.	203, 206
Greenland, Walter W., Jr.	103		Melton, O. A.	464
Greenough, A. J.	685-A		Merger, J. E.	848
Gregory, T. A.	*783		Methany, Richard R.	463, 528
Griesitt, John L.	402, 464		Meyers, Ralph E.	529
Grier, R. B.	782		Michaels, H. E.	845
Grim, J. N.	783		Miesse, W. H.	529
Grove, Charles G.	*103, 783		Miller, L. H.	*104
Guerin, George V., Jr.	42, *104		Miller, R. C.	529
Gunderson, W. A.	462		Miller, William F.	784
Gunsallus, T. C.	529		Miner, K. L.	784
Gurnett, T. H.	529		Mitchell, J. B.	42
Gzowski, C. S.	586, 846		Mitchell, Leander A.	529, 530
			Modglin, Grocer C.	105
H			Modjeski, Ralph	530
Haessly, M. A.	106, 274		Monahan, W. F.	784
Hain, G. M.	782		Montford, E. M.	529
Hajak, F. C.	338		Montgomery, J. F.	44, 206
Hale, C. R.	468		Montgomery, S. T.	464, 529, 685-A, 784
Hale, J. W.	781, 783		Moore, Kenneth	527
Hales, Felix S.	*43		Moore, W. B.	109
Haley, B. E.	464, 587		Morgan, Earl G.	852
Haley, F. A.	529		Morgan, H. P.	529
Halsie, H. Hill	464		Morgan, J. H.	106, 208
Hamilton, Paul	845		Morris, W. C.	403
Hammond, Thomas	106		Morrison, Charles R.	406
Handley, Albert T.	586		Morrison, G. L.	784
Hank, Frederick B.	*40		Morrison, H. T.	203
Hansbury, A. H.	274		Morse, Charles H.	*847
Hanson, O.	783		Morton, Allen W.	530
Hanson, O. A.	784		Moss, L. W.	847
Harding, L. L.	529		Moyer, Warren H.	48, 109
Hardwick, C. H.	103, 206, 273, 462		Mumford, J. I.	784
Harris, George H.	845		Murphy, A. A.	109
Harrison, Edward Alfred	41, 103		Murphy, C. E.	788
Hart, W. F.	273		Murphy, E. R.	685-A
Harvey, W. C.	337		Murphy, Frank G.	338, 402
Haw, A. T.	685-A, 848		Murphy, Howard R.	406
Hawkins, H. J.	400		Murray, J. J.	465
Haworth, G. R.	586		Murray, C. B.	338
Hawthorne, F. M.	783		Murray, Gilbert	103
Hayes, E. H.	338		Muscho, A. E.	106
Hays, Elbert H.	402		Myers, W. N.	685-A, 784
Hedrick, W. J.	585			
Heimerdinger, Walter E.	*278		N	
Heinz, Winton J.	685-A, 848		Neal, Charles H.	2208
Henderson, P. R.	527		Neubert, John V.	*466, 847
Henecker, D. J.	103, 848		Newbegin, Parker C.	*107, 336
Herbert, F. W.	527		Newell, J. P. Jr.	336, 338, 400
Herington, H. E.	685-A, 848		Nieman, William	340
Heritage, Carl S.	*686		Nies, A. B.	41
Herrin, Joe Foster	685-A, 40, 44		Nimmo, W. A.	586
Herr, C. E.	529		Nitzsche, J. E.	784
Hervieux, J. L.	*103		Noonan, F. B.	105, 206
Hervin, Albert W.	106		Nutt, E. H.	403,

Pevler, H. H.	336	Sheffer, R. W.	1275, 336	U	
Pfaffin, Emil H.	1403	Shields, A. C.	*781	Underwood, A. B.	846, 848
Pickrel, J.	105, 274, 402	Shields, Henry L.	685-A		
Pierce, R. J.	106, 204, 206	Shields, L. F.	529	V	
Pike, B.	685-A	Shoda, Leroy D.	388, 402	Van Auker, Charles L.	1587
Pinkham, Ralph H.	*463	Shultz, E. R.	685, 685-A, 846	Vandenburgh, E. C.	273, 342
Polson, S. J.	41	Shurtleff, John W.	206, 274	Van Fleet, Herman	206
Polson, T. P.	685	Silvey, K. J.	586, 685-A	Van Lenten, J. R.	463, 528
Porter, C. B.	273, 337, *338, 685-A	Simpson, V. B.	403, 464, 685-A	Vanover, Benjamin C.	685-A
Prentice, C. D.	41	Sisson, D. B.	782, 784	Van Riper, A. W.	273
Price, Arthur	106	Skelton, E. M.	465, 203	Vaughn, G. C.	338
Price, Clarence E.	403	Slomp, H. L.	*104, 203	Vaughn, H. H.	529, 781
Pruett, M. T.	784	Sloan, Charles E.	586, 847	Veith, H. L.	465, 587
Prybylski, J.	402	Sloan, W. C.	203	Vick, Columbus E.	1275
Pulis, Ernest	274	Smith, Floyd R.	781, 782	Vosburgh, I.	784, 850
Purdon, Charles D.	*1465	Smith, Frank G.	685-A, 685-A		
Putnam, R. W.	781, *847	Smith, H. E.	42	W	
		Smith, Lowry	784	Wallace, J. C.	685
R		Smith, M. R.	848	Wallenius, J. W.	338
Randall, C. J.	464	Smith, M. S. Jr.	338	Walling, V. R.	40, 41, *202
Rawlinson, James E.	108	Smith, Noel W.	402	Ward, F. R.	580
Rector, Mason	1340	Smith, R. R.	782, 784	Warne, Charles C.	1530, 585
Reece, A. N.	846	Smith, Sherman	*40	Watson, Arthur C.	686, *1786, 847
Reilly, John F.	586	Smith, Thomas H.	338	Watt, Herbert J.	109
Reiser, L. J.	1465	Smith, Wayne	402	Watt, J. R. Jr.	464
Reyna, Luis	585	Smith, W. A.	782, 528, 529, 586, 782	Weaver, John W.	45
Rhodes, C. H.	590	Smucker, D. E.	528, 529, 586, 782	Webster, D. P.	781
Rice, William T.	464, 529	Snyder, E. L.	586	Weeks, Otis	48
Richards, S. T.	464, 529	Sobott, Paul	782	Welch, William Perry	1275
Richardson, H. M.	1107	Spofford, Foster R.	106	Wells, H. E.	848
Rickhorst, Max H.	*845	Sponsel, C. T.	844	Welsinger, John	846
Ridgely, John T.	784	Stapleton, John E.	48	West, Troy	202
Roach, W. C.	342	Starrett, Howard M.	402	White, E. A.	526
Roberts, J. P.	529	Stein, H. L.	468	Whiteman, F. O.	*844
Robin, O.	402	Stettinius, Edward R., Jr.	784	Whitman, E. G.	400, 401
Robinson, George E.	401, 203	Stewart, J.	685	Whitmore, H. F.	41, 782
Robinson, L. H.	208	Stimson, A. H.	105, 204, 685	Whitmore, Joseph B.	340, 1340
Rodgers, Sydney M.	401	Stone, R. J.	786, *852	Whitten, Hugh O.	44, 784
Roeper, P. M.	338, 401	Storey, W. B.	848	Whymar, R. G.	587
Rogers, S. M.	44	Stotler, Jack T.	587	Wickman, R. V.	587
Rogman, O. M.	781, 7850	Strate, F. E.	587	Wilcox, F.	274
Rohrbough, W. W.	847	Strout, Willard J.	587	Willard, H. J.	784
Ross, Henry T.	1403, 528	Strother, Ralph R.	587	Williams, J. A.	109
Rozsak, J.	338	Strout, Willard J.	587	Williams, Marshall	468
Rotroff, M. J.	48	Stryker, Clinton E.	530, 529	Williams, W. S.	105, 338
Royce, G. A.	338	Stuckey, C. L.	105	Wilkins, F. S.	273
Rudisill, D. E.	105, 782	Sullivan, Ed.	208	Wilson, A. J.	210
Ruhl, David A.	*337	Sullivan, E. F.	106	Wilson, Charles E.	784
Russell, H. G.	206	Sullivan, J. D.	204	Wilson, E. L.	273, 274, 585, 586
Russell, J. A.	*462	Sullivan, W. Paul	103, 204	Winn, W. W.	203, 278
Rust, R. B., Jr.	784	Swanson, C.	529	Wireles, F. J.	340
Rutherford, H. B.	464			Witchel, A. J.	781
Ryerson, Edward L. Jr.	406	T		Witter, Albert A.	105
		Taylor, Ernest R.	782	Wohlert, L. H.	401
S		Taylor, Murray C.	340	Wolff, A. O.	42
Safford, Edward P.	402	Taylor, W. E.	527	Womeldorf, C. F.	203
Sahn, Russell L.	463, 464, 782, 784	Teague, J. C.	106	Wood, Harold G.	400
Salisbury, E. F.	845	Templeton, J. B.	278	Woodall, L. Jr.	783
Salisbury, Howard R.	590	Templeton, W. B.	278	Woodburn, H. E.	847
Sampson, Richard E.	403, 465	Thelander, P. V.	845	Wooding, George S.	338, 784
Saunders, O. B.	463	Thomson, D. A.	685	Worthington, R. W.	685-A
Schaumburg, Fred M.	784	Thomson, W. A.	105	Wright, Charles R.	*685, 782
Schmid, R. L.	*105	Thulin, C. N.	342	Wutzke, H. E.	338
Schmitt, R. E.	685-A, 686, 848	Thulin, Earl E.	*342, 788		
Schwank, C. F.	105	Thurston, O. W.	274		
Scott, Alexander	273	Timken, Henry H. Jr.	852	Y	
Snowden, A. B.	465, *530	Tinker, George Henry	*43	Young, M. Jr.	846
Sieman, Henry B.	*786	Tohey, William Homer	*202		
Sears, Leonard	106	Tohey, James	105, 274	Z	
Sears, N. B.	587	Towne, R. W.	48	Zearley, J. P.	106
Seeley, H. W.	464	Townson, W. H.	164	Zimmer, Judson	*685
Seitz, Robert P.	587	Tranzow, Frank A.	585-A		
Self, M. W.	403	Trenholm, H. S.	44		
Sevick, Lars K.	685-A	Triplett, Forrest A.	338		
Sewell, J.	464	Triplett, P. W.	685		
Sexton, J. P.	590	Trowbridge, C. F.	206		
Seydel, H. B.	338	Tullis, Nevin M.	527		
Shaeffer, B. W.	*40	Turner, W. J.	783		
Shaw, Albert	848	Tuten, J. M.	208		
Shaw, P.	685-A	Tyers, W. J.	106, 206		
Shaw, William A.		Tyler, N. B.			

## INDEX TO AUTHORS

[Illustrated articles are noted\*]

A		Branson, C. B.	*92, 580	Cramer, F. H.	*159, 454
A'ams, L. L.	95, 582	Buckle, P. F.	194	Creswell, F. L.	*733
Alberts, N. F.	835	Byrd, L. G.	35, 96, 100, 197, 264, 327, 331, 332, 395, 454, 456, 521, 522, 580, 582, 583, 677, 678, 680, 681, 773, 775, 836	Crites, G. S.	33, 98, 99, 197, 263, 331, 391, 393, 453, 457, 520, 522, 680, 834
Austill, H.	34, 267, 677			Crowley, E. E.	836
				Curtiss, W. L.	269
B					521
Baldridge, C. W.	581	C		D	
Banion, E. L.	577, *671	Campbell, F. G.	326	Davidson, J. H.	578
Barwell, R. C.	775	Candle, R. E.	*747	DeNardo, N. P.	268
Becker, Joseph H.	266, 394	Chaney, A. B.	327, *651	Derrick, J. R.	33, *158, 393
Bishop, F. S.	199	Chicoine, P.	331	Dick, M. H.	*766
Brage, J. B.	395, 522, 676	Chinn, Armstrong	191, 326, 836	Dorland, A. G.	579
Brumfield, W. H.	675	Clarke, H. R.	35, 101, 396, 577, *728, *162	Dwinell, Bruce E.	*739
Brodie, Roy N.	*823	Clutz, J. J.			



[illegible]

## INDEX TO ADVERTISERS

<b>A</b>	Douglas Fir Plywood Association	71, 339, 724	Lufkin Rule Company, The	55, 116, 220, 285, 348, 859
Air Reduction Sales Company	Duff-Norton Manufacturing Co., The	133, 412, 535, 695, 856	Landie Engineering Corporation, The	618, 792, 857
11, 76, 139, 242, 295, 367, 427, 540, 554, 687, 709, 861	<b>E</b>		<b>M</b>	
American Brake Shoe & Foundry Company, see The American Manufacturing Steel Division and Ramapo Ajax Division	Eaton Manufacturing Company; see Reliance Spring Washer Division	615	Maintenance Equipment Company	129, 280, 355, 444, 609, 799
American Equipment Corporation	Elastic Rail Spike Corporation	615	Mail Tool Company	54, 117, 223, 284, 350, 414, 477, 537, 596, 696, 796, 858
7, 147, 484, 544, 629, 787, 808	Electric Tamping & Equipment Company	56, 118, 225, 286, 352, 416, 478, 538, 598, 698, 798, 860	Master Builders Company, The	785
American Hoist & Derrick Company	<b>F</b>		Morden Frog & Crossing Works	223
53, 113, 215, 281, 345, 409, 471, 533, 593, 693, 791, 852	Fairbanks, Morse & Company	132, 426, 616	Moss Tie Company, T. J.	479, 627
American Lumber & Treating Company	Fairmont Railway Motors, Inc.	5, 63, 125, 126, 127, 128, 233, 293, 359, 423, 485, 505, 707, 805	<b>N</b>	
American Manufacturing Steel Division	Flexrock Company	415, 477, 537, 597, 697, 797, 859	National Carbide Corporation	224
American Brake Shoe & Foundry Company	<b>G</b>		National Lock Washer Company, The	59, 229, 481, 701, 703, 801
Arden Manufacturing Company	Gary Screw & Bolt Company	7, 147, 484, 544, 629, 787, 808	National Railway Appliances Association	119
Armo Drainage Products Association	General Electric Company	110, 111, 239, 379, 604, 625, 350	Nordberg Manufacturing Company	14, 66, 211, 288, 296, 365, 467, 486, 551, 623, 718, 807
53, 213, 344, 471, 595, 12, 131, 299, 417, 422, 496	<b>H</b>		<b>O</b>	
<b>B</b>	Homelite Corporation, The	224, 351, 698	Oxweld Railroad Service Company, The	58, 67, 134, 135, 235, 301, 418, 425, 493, 545, 610, 611, 719, 814
Baren Manufacturing Company	Hubbard & Company	617	Ozalid Corporation	216, 347
57, 72, 135, 237, 244, 303, 364, 429, 599, 621, 716, 804	Hunt Company, Robert W.	592	<b>P</b>	
Bethlehem Steel Company	<b>I</b>		P. & M. Company	1, 121, 419, 601
3, 61, 123, 231, 291, 357, 421, 469, 483, 543, 603, 622, 705, 803	Industrial Brownhoist Corporation	55, 117, 219, 280, 350, 413, 476, 536, 596, 694, 790, 858	Pittsburgh Screw & Bolt Corporation	7, 147, 484, 544, 629, 787, 808
Buda Company, The	Ingersoll-Rand Company	49, 65, 148, 606	Portland Cement Association	130, 354, 624
Byron Jackson Company	International Harvester Company, Inc.	129, 207, 353, 480, 600, 715	<b>Q</b>	
306, 432, 531, 532, 717	<b>J</b>		Q & C Company	220, 695
<b>C</b>	Jacobsen Mfg. Co.	474	<b>R</b>	
Carnegie-Illinois Steel Corporation; see also United States Steel Corporation	Jordan Company, O. P.	692	Racine Tool & Machine Company	221, 694
64, 142, 232, 297, 360, 487, 546, 547, 620, 706, 809	<b>K</b>		Rail Joint Company, Inc., The	124, 289, 494, 541, 614
Chicago Pneumatic Tool Company	Koppers Company	68, 69, 277, 341, 363, 489, 490, 591, 607, 608, 853, 862	Railroad Accessories Corporation	632, 722, 812
143, 626	<b>L</b>		Rails Company, The	228, 702
Chicago Steel Foundry Company	Layne & Bowler, Inc.	52, 213, 345, 473, 593, 795	Railway Maintenance Corporation	138, 634
224	<b>M</b>		Railway Track-work Company	51, 116, 220, 283, 349, 409, 476, 536, 597, 698, 796, 859
Chipman Chemical Co., Inc.	<b>N</b>		Ramapo-Ajax Division, American Brake Shoe & Foundry Company	236, 237, 404, 405
368	<b>O</b>			
Collins Oil & Mfg. Co.	<b>P</b>			
697	<b>Q</b>			
Columbia Steel Company; see also United States Steel Corporation	<b>R</b>			
64, 142, 232, 297, 360, 487, 546, 547, 620, 706, 809				
Cullen-Friededt Company				
51, 112, 212, 283, 846, 410, 475, 535, 594, 692, 794, 856				
<b>D</b>				
Dearborn Chemical Company				
4, 227, 304, 431, 589, 799				
Dobbins Manufacturing Co.				
294, 861, 414				



Reed-Prentice Corporation.....	219
Reliance Spring Washer Division, Eaton Manufacturing Company.....	2, 60, 122, 230, 290, 356, 420, 482, 542, 602, 704, 802
<b>S</b>	
Schramm, Inc.....	205, 285, 351, 415, 474, 536, 596, 689, 711
Scully Steel Products Company.....	64, 360, 487, 546, 547, 620, 706, 809
Simmons-Boardman Publishing Corporation.....	8, 9, 50, 54, 70, 114, 115, 214, 218, 222, 224, 279, 300, 344, 362, 408, 410, 428, 470, 488, 534, 548, 592, 618, 691, 714, 789, 797, 854
Sperry Rail Service.....	145, 713, 806
Stanley Electric Tool Division.....	216, 470
Stanley Works, The.....	216, 281, 411, 470
Syntro Company.....	62, 112, 217, 284, 348, 412, 473, 533, 595, 693, 793, 855

<b>T</b>	
Tar and Chemical Division, Koppers Company.....	341, 489, 490, 607, 853
Templeton, Kenly & Company.....	55, 117, 223, 285, 351, 415, 477, 537, 597, 697, 797, 859
Tennessee Coal, Iron & Railroad Company; see also United States Steel Corporation.....	64, 232, 360, 487, 546, 547, 620, 706, 809
Timber Engineering Company.....	54, 116, 221, 284, 346, 413, 476, 800, 811
Timken Roller Bearing Company, The.....	6, 144, 298, 424, 628, 712
Track Supply Association.....	539

<b>U</b>	
Union Carbide & Carbon Corporation.....	58, 67, 134, 135, 235, 301, 418, 425, 493, 545, 610, 611, 719, 814
Union Metal Manufacturing Co., The.....	217, 282, 349, 472, 594, 793
United States Steel Corporation and Sub-	

sidaries.....	64, 142, 232, 297, 360, 487, 546, 547, 620, 706, 809
United States Steel Export Company; see also United States Steel Corporation.....	64, 142, 232, 297, 360, 487, 546, 547, 620, 706, 809

<b>W</b>	
Warren Tool Corporation.....	150, 631, 792, 857
Williams & Co., J. H.....	113, 212, 282, 347, 696, 791
Wood Preserving Corporation, The.....	68, 69, 277, 363, 489, 490, 608, 862
Woodings Forge & Tool Company.....	45, 209, 358, 552, 619, 710, 851
Woodings-Verona Tool Works.....	62, 209, 287, 292, 434, 539, 552, 619, 710, 851
Woolery Machine Company.....	47, 74, 140, 141, 240, 343, 411, 414, 472, 475, 491, 549, 612, 708, 849

<b>Y</b>	
Young Manufacturing Company, R. W.....	796